



10-02-06

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PTO/SB/21 (07-06)

Approved for use through 09/30/2006. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/688,068	
	Filing Date	October 17, 2003	
	First Named Inventor	Dukesherer, et al.	
	Art Unit	3737	
	Examiner Name	To Be Determined	
Total Number of Pages in This Submission		Attorney Docket Number	5074A-000069

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Reply  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input checked="" type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC)  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  <b>Form 1449 citing 138 U.S. Patent Documents, citing and enclosing 39 Foreign Patent Documents, and citing and enclosing 52 Other Documents; and acknowledgment postcard.</b>
Remarks		The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name Richard W. Warner	Reg. No. 38,043
Signature			
Date	September 29, 2006		

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Richard W. Warner	Express Mail Label No.	EV 806662446 US
Signature		Date	September 29, 2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

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	Filing Date	October 17, 2003
	First Named Inventor	Dukesherer, et al.
	Art Unit	3737
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<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Reply  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input checked="" type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC)  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  <b>Form 1449 citing 138 U.S. Patent Documents, citing and enclosing 39 Foreign Patent Documents, and citing and enclosing 52 Other Documents; and acknowledgment postcard.</b>
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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/688,068  
Filing Date: October 17, 2003  
Applicant: Dukesherer, et al.  
Group Art Unit: 3737  
Examiner: To Be Determined  
Title: METHOD AND APPARATUS FOR SURGICAL NAVIGATION  
Attorney Docket: 5074A-000069

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Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

**I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION**

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

**II. COPIES**

A. ☒ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) each unpublished U.S. application listed below in Section IV (i.e., including the specification, claims, and any drawing of the application, or that portion of the application which caused it to be listed, including any claims directed to that portion), except for such applications filed on or after June 30, 2003, pursuant to the Waiver of the Copy Requirement in 37 C.F.R. 1.98 (OG Notice dated October 19, 2004); and (iv) all other information or that portion which caused it to be listed.

B. ☐ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).)

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☒ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☒ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☐ See the attached foreign patent office communication from a counterpart foreign application:

2. ☐ English translations are provided:

3. ☒ Other:

Japanese Patent No. 61-94639 appears to disclose a head mounting device.

Japanese Patent No. 62-327 appears to disclose scans of a head.

Japanese Patent No. 63-240851 appears to disclose a head holding device.

Other document entitled "Reinhardt, H.F., et al., Mikrochirurgische Entfernung tiefliegender Gefäßmißbildungen mit Hilfe der Sonar-Stereometrie

(Microsurgical Removal of Deep-Seated Vascular Malformations Using Sonar Stereometry)" is included with an English abstract.

English abstracts are provided for:

French Patent No. 2 618 211  
Japanese Patent No. 3267044  
German Patent No. 35 08730  
German Patent No. 37 17 871  
German Patent No. 38 38011  
German Patent No. 42 13 426  
German Patent No. 42 25 112  
German Patent No. 197 15 202  
German Patent No. 197 47 427  
German Patent No. 197 51 761  
German Patent No. 198 32 296  
WIPO Patent No. 95/07055  
WIPO Patent No. 97/36192  
WIPO Patent No. 99/21498

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☒ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.  
10/941,782  
11/179,044

Filing Date  
September 15, 2004  
July 11, 2005

Inventor(s)  
Brad Jascob et al.  
Dukesherer et al.

V. THIS IDS IS BEING FILED UNDER

A. ☒ **37 C.F.R. § 1.97(b):** (check only one box)

1. ☐ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. ☒ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. ☐ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☐ **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. ☐ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ☐ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. **CERTIFICATION UNDER 37 C.F.R. § 1.97(e):** (check only one box)

The undersigned hereby certifies that:

A. ☐ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. ☐ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ☐ some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 C.F.R. 1.704(d)

The undersigned hereby states that:

☐ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box, if applicable)

A. ☐ A check in the amount of \$180.00 is enclosed for the above-identified fee.

B. ☐ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-identified fee. A duplicate copy of this paper is attached.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Respectfully submitted,

Date: September 29, 2006

By:



~~Richard W. Warner~~, Reg. No. 38,043

Michael L. Taylor, Reg. No. 50,521

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600





FORM PTO-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE  
INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Sheet 1 of 11

ATTORNEY DOCKET NO.

5074A-000069

APPLICANT

Dukesherer, et al.

FILING DATE

October 17, 2003

SERIAL NO.

10/688,068

GROUP

3737

**U.S. PATENT DOCUMENTS**

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		3,109,588	11/1963	Polhemus et al.		
2.		3,614,950	10/1971	Rabey		
3.		3,644,825	02/1972	Davis, Jr. et al.		
4.		3,821,469	06/1974	Whetstone et al.		
5.		3,983,474	09/1976	Kuipers		
6.		4,017,858	04/1977	Kuipers		
7.		4,182,312	01/1980	Mushabac		
8.		4,228,799	10/1980	Anichkov et al.		
9.		4,256,112	03/1981	Kopf et al.		
10.		4,298,874	11/1981	Kuipers		
11.		4,319,136	03/1982	Jenkins		
12.		4,328,548	05/1982	Crow et al.		
13.		4,341,220	07/1982	Perry		
14.		4,346,384	08/1982	Raab		
15.		4,396,945	08/1983	DiMatteo et al.		
16.		4,419,012	12/1983	Stephenson et al.		
17.		4,506,676	03/1985	Duska		
18.		4,571,834	02/1986	Fraser et al.		
19.		4,583,538	04/1986	Onik et al.		
20.		4,608,977	09/1986	Brown		
21.		4,617,925	10/1986	Laitinen		
22.		4,638,798	01/1987	Shelden et al.		
23.		4,659,971	04/1987	Suzuki et al.		
24.		4,660,970	04/1987	Ferrano		
25.		4,688,037	08/1987	Krieg		
26.		4,701,049	10/1987	Beckmann et al.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 2 of 11	ATTORNEY DOCKET No.	SERIAL No.
	5074A-000069	10/688,068
	APPLICANT	
	Dukesherer, et al.	
	FILING DATE	GROUP
	October 17, 2003	3737

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
27.		4,705,395	11/1987	Hageniers		
28.		4,705,401	11/1987	Addleman et al.		
29.		4,709,156	11/1987	Murphy et al.		
30.		4,710,708	12/1987	Rorden et al.		
31.		4,723,544	02/1988	Moore et al.		
32.		4,733,969	03/1988	Case et al.		
33.		Re. 32,619	03/1988	Damadian		
34.		4,737,032	04/1988	Addleman et al.		
35.		4,742,356	05/1988	Kuipers		
36.		4,742,815	05/1988	Ninan et al.		
37.		4,743,770	05/1988	Lee		
38.		4,743,771	05/1988	Sacks et al.		
39.		4,745,290	05/1988	Frankel et al.		
40.		4,753,528	06/1988	Hines et al.		
41.		4,761,072	08/1988	Pryor		
42.		4,764,016	08/1988	Johansson		
43.		4,779,212	10/1988	Levy		
44.		4,782,239	11/1988	Hirose et al.		
45.		4,788,481	11/1988	Niwa		
46.		4,794,262	12/1988	Sato et al.		
47.		4,804,261	02/1989	Kirschen		
48.		4,805,615	02/1989	Carol		
49.		4,809,694	03/1989	Ferrara		
50.		4,821,200	04/1989	Öberg		
51.		4,822,163	04/1989	Schmidt		
52.		4,829,373	05/1989	Leberl et al.		
53.		4,838,265	06/1989	Cosman et al.		

Examiner:	Date Considered:
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<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 3 of 11	ATTORNEY DOCKET NO.	SERIAL NO.
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	October 17, 2003	3737

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
54.		4,841,967	06/1989	Chang et al.		
55.		4,825,091	08/1989	Breyer et al.		
56.		4,860,331	08/1989	Williams et al.		
57.		4,869,247	09/1989	Howard, III et al.		
58.		4,875,165	10/1989	Fencil et al.		
59.		4,875,478	10/1989	Chen		
60.		4,884,566	12/1989	Mountz et al.		
61.		4,896,673	01/1990	Rose et al.		
62.		4,955,891	09/1990	Carol		
63.		4,961,422	10/1990	Marchosky et al.		
64.		5,017,139	05/1991	Mushabac		
65.		5,047,036	09/1991	Koutrouvelis		
66.		5,078,140	01/1992	Kwoh		
67.		5,098,426	03/1992	Sklar et al.		
68.		5,099,846	03/1992	Hardy		
69.		5,143,076	09/1992	Hardy et al.		
70.		5,193,106	03/1993	DeSena		
71.		5,207,688	05/1993	Carol		
72.		5,224,049	06/1993	Mushabac		
73.		5,230,338	07/1993	Allen et al.		
74.		5,230,623	07/1993	Guthrie et al.		
75.		5,257,998	11/1993	Ota et al.		
76.		5,261,404	11/1993	Mick et al.		
77.		5,285,787	02/1994	Machida		
78.		5,291,889	03/1994	Kenet et al.		
79.		5,299,253	03/1994	Wessels		
80.		5,300,080	04/1994	Clayman et al.		

Examiner:	Date Considered:
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 4 of 11	ATTORNEY DOCKET NO.	SERIAL NO.
	5074A-000069	10/688,068
	APPLICANT	
	Dukesherer, et al.	
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	October 17, 2003	3737

### U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
81.		5,306,271	04/1994	Zinreich et al.		
82.		5,307,072	04/1994	Jones, Jr.		
83.		5,330,485	07/1994	Clayman et al.		
84.		5,359,417	10/1994	Müller et al.		
85.		5,371,778	12/1994	Yanof et al.		
86.		5,394,875	03/1995	Lewis et al.		
87.		5,398,684	03/1995	Hardy		
88.		5,413,573	05/1995	Koivukangas		
89.		5,457,641	10/1995	Zimmer et al.		
90.		5,469,847	11/1995	Zinreich et al.		
91.		5,480,439	01/1996	Bisek et al.		
92.		5,514,146	05/1996	Lam et al.		
93.		5,566,681	10/1996	Manwaring et al.		
94.		5,568,384	10/1996	Robb et al.		
95.		5,575,798	11/1996	Koutrouvelis		
96.		5,590,215	12/1996	Allen		
97.		5,611,025	03/1997	Lorensen et al.		
98.		5,646,524	07/1997	Gilboa		
99.		5,682,890	11/1997	Kormos et al.		
100.		5,696,500	12/1997	Taylor et al.		
101.		5,740,802	04/1998	Nafis et al.		
102.		5,767,669	06/1998	Hansen et al.		
103.		5,767,960	06/1998	Orman		
104.		5,769,843	06/1998	Abela et al.		
105.		5,810,008	09/1998	Dekel et al.		
106.		5,820,553	10/1998	Hughes		
107.		5,828,770	10/1998	Leis et al.		

Examiner:

Date Considered:

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111.		5,951,571	09/1999	Audette		
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116.		6,014,580	01/2000	Blume et al.		
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118.		6,076,008	06/2000	Bucholz		
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3.		EP 0 155 857	01/1985	Europe			
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15.		DE 197 47 427	10/1997	Germany		Abstract	
16.		DE 197 51 761	11/1997	Germany		Abstract	
17.		DE 198 32 296	07/1998	Germany		Abstract	

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21.		JP 62-327	06/1985	Japan			X
22.		JP 63-240851	03/1987	Japan			X
23.		JP 3-267054	03/1990	Japan		Abstract	
24.		FR 2 618 211	07/1987	France		Abstract	
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26.		WO 95/07055	09/1994	WIPO		Abstract	
27.		WO 96/32059	11/1995	WIPO			
28.		WO 97/49453	06/1997	WIPO			
29.		WO 97/36192	10/1997	WIPO		Abstract	
30.		WO 99/23956	11/1997	WIPO			
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